

КОМПЛЕКСЕН НАУЧНОИЗСЛЕДОВАТЕЛСКИ И ПРОЕКТАНТСКИ
ИНСТИТУТ ПО СТРОИТЕЛНИ МАТЕРИАЛИ

ЗАВОДПРОЕКТ



ZAVODPROJECT

COMPLEX SCIENTIFIC—RESEARCH AND DESIGN ING
INSTITUTE OF BUILDING MATERIALS

КОМПЛЕКСЕН

COMPLEX

НАУЧНОИЗСЛЕДОВАТЕЛСКИ

SCIENTIFIC—RESEARCH

И ПРОЕКТАНСКИ ИНСТИТУТ

AND DESIGNING INSTITUTE

ПО СТРОИТЕЛНИ МАТЕРИАЛИ

OF BUILDING MATERIALS

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ПРОЕКТ**

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In 1947 Indproject Design Organization, necessary for building the new socialist industry of our country, was created with the Ministry of Industry. Indproject designed the reconstruction of old nationalized industrial enterprises and the first new plants: Ernst Thaelmann Textile Factory, Voulkan State Cement Plant — first line, Gavril Genov State Ceramic Combine, etc. Since 1952 the Organization, renamed as Promproject, is entrusted with the designing of industrial projects for the light and food industry, woodworking, machinebuilding, building materials industry, etc. It becomes the basic organization for industrial designing in our country and gives a real and considerable contribution for building the material and technical base of industry.

Because of the increased and versatile work, two directorates for designing are formed in 1954: Heavy Industry Directorate and Light and Food Industry Directorate. In 1956 Zavodproject Design Organization is created from the Heavy Industry Directorate.

The country's development sets up new industrial branches, connected with a considerable expansion of designing. New specialized design organizations in various branches separate subsequently from Zavodproject: food industry, woodworking, metallurgy, machinebuilding, chemistry, etc.

Since 1962 Zavodproject Study and Design Institute is subordinated to the Ministry of Constructions, for designing of enterprises for building and efficient materials production.

Since 1974 a Geological Section is set up with Zavodproject Study and Design Institute. In the same year Zavodproject Study and Design Institute becomes a Complex Study and Design Institute. In 1979 Zavodproject and the Scientific and Research Institute on Building Materials are amalgamated and create **ZAVODPROJECT COMPLEX SCIENTIFIC—RESEARCH AND DESIGNING INSTITUTE OF BUILDING MATERIALS**

Now Zavodproject is the sole specialized institute for scientific research, geological prospecting and industrial designing in the field of building materials. It is member of Bulgarconsult Engineering Company, of Technoexport Foreign Trade Company, of the Bulgarian Industrial Economic Association and of Sofia Industrial Economic Association.

Zavodproject Complex Scientific-Research and Designing Institute of Building Materials has at its disposal highly qualified specialists; scientific workers, architects, engineers, geologists, economists, technologists. The fact that they take part as authoritative experts in the permanent commissions on cooperation with CMEA, UNIDO and other international organizations testify to the high level of their professional qualification. Zavodproject's specialists participate most actively in working out programmes and forecasts for the development of building materials industry, in shaping the technical policy of construction. They take part in the departmental and higher council

on standardization, in working out and realization of the technical progress programmes, in interdepartmental expert councils and commissions. The capacities for production of building materials in our country are built after the Institute's developments and designs.

Zavodproject Complex Scientific-Research and Design Institute on Building Materials designs industrial projects in the USSR, GDR, Mongolia, Vietnam, Tanzania, Afghanistan, Iraq and other countries.

The institute realizes comprehensive international cooperation with scientific-research and design institutes in the USSR, GDR, Czechoslovakia, Poland, Hungary, Romania and maintains contacts with leading firms in the developed capitalist countries.

The institute has at its disposal modern research, computer and drilling apparatus and material-technical base for semi-industrial and small-tonnage production, which guarantee high scientific and technical level of the research, geological prospecting and design work.

ZAVODPROJECT COMPLEX SCIENTIFIC—RESEARCH AND DESIGNING INSTITUTE OF BUILDING MATERIALS ORGANIZATIONAL STRUCTURE

Zavodproject Complex Scientific-Research and Designing Institute of Building Materials consists of three specialized directorates:

Scientific Research Directorate
Geological investigating Directorate
Study and Designing Directorate

**SCIENTIFIC RESEARCH DIRECTORATE
CONSISTS OF THE FOLLOWING SCIENTIFIC
SECTIONS:**

Binding Materials and Asbestos-Cement Products
Facade Ceramics
Building Ceramics (production of bricks and tiles)
Refractories
Light Additional and Insulation Materials
Inert Materials for Concrete and Mortars
Heat-Engineering Processes and Equipment
Using Industrial Scrap for Production of Building Materials and Products
Chemical-Analytical and Physical-Chemical Researches
Prognosticating and Efficiency of Building Materials Production
Experimental Production

Mechanization and Automation of Technological Processes
Development-Implementation
Control-Measuring Instruments and Automatics

GEOLOGICAL DESIGNING DIRECTORATE CONSISTS OF THE FOLLOWING DEPARTMENTS:

Geological investigating of Building Materials
Engineer-Geological and Hydro-Geological investigating
Laboratory Researches
Machine-Drilling

DESIGN DIRECTORATE INCLUDES SPECIALIZED DE- PARTMENTS FOR:

- a) technological and installation design:
 - cement and other inorganic binding materials
 - building ceramics
 - inert materials
 - dedusting and air conditioning
 - power and industrial automation
 - machinebuilding
- b) architectural and construction design:
 - architectural
 - building structures
 - roads and general plan
 - water supply and sewerage
 - organization of construction and accounting
 - technical-economic investigations and scientific organi-
zation of production, labour and management
 - automated systems for designing with computer centre

ZAVODPROJECT ACTIVITY

SCIENTIFIC AND RESEARCH WORK:

investigations for creating new efficient building materials;
chemical and mineralogical investigations of the raws for building materials production, development and implementation of new methods for chemical-analytical and physical-chemical researches;
physical-mechanical tests of building materials and products, development and implementation of modern methods for testing, control and assessment of their quality;
development and implementation of technologies for production of cement and other inorganic binding materials;
development and implementation of technologies for production of bricks, ceramic blocks and tiles;
improvement of technologies for production of natural additional materials for concrete and mortars;

development of technologies and mastering the production of light additional materials for concrete and mortars;
development of technologies and implementing the production of new varieties of heat- and sound-insulating materials;
development of compounds and technology for production of facade and floor ceramics, acid- and alkali-resistant products, creating of new glazings and dyes;
studies, researches and technologies for utilizing industrial scrap in the building materials production;
development of technologies for utilization fuel containing scrap from the thermo-electric power stations and the coal mining industry;
implementation of new refractory materials, products and linings of thermal equipment in the ceramic and cement industries;
development of standards and of normative documents for building materials;
researches and developments for economical spending of power carriers in building materials industry, working out power balances of the enterprises, increasing the effectiveness of the thermal equipment;
working out of long- and short-term forecasts and programmes for the development of building materials production;
development of the normative base for applying the team organization of labour in building materials industry;
working out of programmes for development and implementation of the technical progress in building materials production;
methodological management of the plant laboratories, quality control and metrology members and increasing their personnel qualification.

GEOLOGICAL PROSPECTING ACTIVITY:

geological prospecting for proving raw material reserves for the cement and ceramic industries and production of natural additional materials for concrete and mortars;
engineer-geological investigation for the needs of industrial and civil construction;
hydro-geological investigating
investigation of the raw materials' chemical properties;
determining the earth-mechanical and physical-mechanical properties of the raws and materials;
machine drilling;
building of water supply equipment — drilling wells, etc.;
production of non-standard and prototype machines and equipment.

DESIGN ACTIVITY:

a) industrial designing of complex projects or subprojects, reconstruction and modernization of existing capacities for production of building materials:
inorganic binding materials (cement, lime, gypsum, etc.);

building ceramics (bricks, tiles, facade and floor ceramics);
light additional materials for concrete and mortars (ceramsite, agloporite, schistoporite, perlite);
heat-, sound- and hydro-insulation materials (mineral wool and products, glass wool and products, voalit, etc.);
inert materials (sand, gravel, crushed stone);
stoneware and acid resistant products and other efficient materials;

b) complex social servicing of the industrial enterprises, including designing of plant-management and residential buildings, workers' canteens, shops, rest-healing bases, sports complexes, laying out gardens and parks in industrial sites; installation designing (heating and air conditioning, power and industrial automation, water supply and sewerage, etc.);
designing of inner-factory transport;
construction of non-standard equipment;
working out of designs for organization of construction and draft statements of account;
author's supervision and realization of projects;
training of specialists and workers for industrial enterprises;

AUTOMATION AND MECHANIZATION OF THE PRODUCTION PROCESSES:

research and study of the technological and production processes in the building materials industry, organization of production and management;
development of systems for control and management with conventional devices and computer apparatus;
working out of designs for information-measuring systems, systems for automatic regulation, automatic control and complex automation;
implementation of information-measuring systems, systems for automatic regulation, automatic control and complex automation of production;
development of systems for mechanization of production processes;
making and implementing devices, units and aggregates for mechanization of production;
study, design and production, equipping and tuning of systems for electric drive control and processes, aggregates and units technological control;
measuring of temperatures, pressure, humidity, speed and flow of fluids, lighting, noise, noxiousness concentration, etc.;
development of systems for automation of designers' labour and scientific researches on the basis of modern mathematical methods and computer apparatus;
complex solving the problems on automation of the design and scientific research process, of management and the connected with them auxiliary activities;
development and implementation of methods, programmes and programme systems for computers and the respective systems for machine graphics with graphic construction, aiming at automation of the drawing-graphic activity.

ZAVODPROJECT ACTIVITY REALIZATION

After institute's designs are built the cement plants in our country: Voulkan State Cement Combine — Dimitrovgrad, Zlatna Panega State Cement Plant, V. Zaimov State Cement Plant — Pleven, Devnya State Cement Plant, Wilhelm Pieck State Cement Combine — Beli Izvor and Vassil Kolarov State Cement Plant — Temelkovo, as well as the capacities for asbestos-cement products;

plants for production of bricks and tiles: "Budeshte" — Boudovo, "Radenko Vidinski" — Dragovishtitsa village, "Demir Slavov" — Sliven, "General Toshevo", "Loukovit", "Dounav" — Ovcha Mogila village, "Grozdevo", "L. Kirilov" — Harmanli, "Polski Trumbesh", "Kaspichan", "Trakia" — Plovdiv, "Rel'yovo", etc.;

Floor Ceramics Plant — Mihaylovgrad;

Purvi May Stoneware Pipes Plant — Pleven;

Mineral Wool Products Plant — Polski Trumbesh

Bratya Kounchevi Crusing-Washing Sorting Installations — Stara Zagora District, Gorno Ezerovo village, Bourgas district, Rousse, Silistra, etc.

Zavodproject Complex Scientific-Research and Designing Institute of Building Materials has developed technologies and designs of enterprises for production of efficient building materials: ceramsite, schistoporite, agloporite, perlite, hydroinsulation materials, etc.

The institute has developed technologies and has mastered the production of chemical additives for concrete: Louplast S, Loutol K, Loutol KN, Viscobet, Loukret, most often applied in construction and ensuring round the year regular work of the building organizations.

After institute's own recipes are produced expanding and quick-setting cement, refractories and fireproof materials and compounds, color sands, etc.

After institute's developments the regular production is mastered of high-strength and quick-setting portland cement: PC 550, BVC 450, SUPC 450, etc.

Zavodproject Complex Scientific-Research and Designing Institute of Building Materials has made complete studies of the raw material base of building materials industry and has ensured reserves for the ceramic, cement and other industries till the end of the present century.

Zavodproject participates most actively in shaping the technical policy of construction, in developing problems and tasks from the plan for scientific and technical collaboration between the CMEA countries, as well as in developing basic documents connected with deepening cooperation in the field of construction with the Soviet Union and the other socialist countries.

The institute has been granted high government and state awards for its all-round activity and considerable contribution for building the material and technical base of construction. It is bearer of the Red Banner of Labour order.

With its versatile activity Zavodproject Complex Scientific-Re-

search and Design Institute on Building Materials contributes to realizing the decisions of the 12th Congress of the Bulgarian Communist Party, to implementing the technological progress in the building materials industry and construction, to creating a highly efficient production and technical base of the building materials industry and to strengthening integration links between the socialist countries.

MAJOR PROJECTS DESIGNED BY ZAVODPROJECT BULGARIA

STATE CEMENT PLANTS

Wilhelm Pieck State Cement Plant
Zlatna Panega State Cement Plant
Vladimir Zaimov State Cement Plant
Devnya State Cement Plant
Vassil Kolarov State Cement Plant
Voulkan State Cement Plant
Ognyanovo and Cherepish Amalgamated Lime Factories

STATE CERAMIC PLANTS

Budeshte State Ceramic Plant — Boutovo village
Chedeka State Ceramic Plant — Letnitsa village
Purvi May State Ceramic Plant — Pleven
Polski Trumbesh State Ceramic Plant — Polski Trumbesh
Kaspichan State Ceramic Plant — Kaspichan
Trakia State Ceramic Plant — Plovdiv
Sliven State Ceramic Plant — Sliven
Ovcha Mogila State Ceramic Plant
Nova Shipka State Ceramic Plant — Varna district
Radenko Vidinski State Ceramic Plant
Pirin State Ceramic Plant — Razlog
Elin Pelin Refractory Materials Plant — Elin Pelin
Floor Ceramics Plant — Mihaylovgrad
Sevlievo State Ceramic Plant — Sevlievo
General Toshevo State Ceramic Plant — General Toshevo
Ceramsite Plant — Kroumovo village
Mizia State Ceramic Plant — Gorna Oryahovitsa
Alexander Voynov State Ceramic Plant
State Ceramic Plant — Loukovit

L. Kirilov State Ceramic Plant — Harmanli
Troud Refractory Products Plant — Rousse
S. Ivanov Dinas and Magnesians Refractories Plant — Sliven
Relyovo State Ceramic Plant
Toundja State Ceramic Plant — Straldja

CRUSHING—WASHING AND SORTING INSTALLATIONS AND QUARRIES

Koriata Crushing-Washing and Sorting Installation
Crushing-Washing and Sorting Installation — Silistra
Sini Vir Crushing-Washing and Sorting Installation and Quarry — Varna
Bratya Kounchevi Crushing-Washing and Sorting Installation — Stara Zagora
Crushing-Washing and Sorting Installation — Gorno Ezerovo
Crushing-Washing and Sorting Installation — Dragoevo

GLASS PLANTS

STIND — Sofia
Drouzhba — Plovdiv
S. Peev — Beloslav
Sanitary Faience Plant — Kaspichan
Household Porcelain Plant — Novi Pazar, Vidin, Razgrad, Elin Pelin (IZIDA), etc.
Ivan Vinarov — Pleven
Kristal — Pernik
D. Stefanov Window Glass Plant — Razgrad
Glass Plant — Sliven
Vibrobeton Building Industrial Enterprise (DK1)
State Combine — Zemlyane

WOODWORKING ENTERPRISES

Polkovnik Abadjiev Woodworking Plant — Teteven
Woodworking Plant — Slivnitsa
Woodworking Plant — Troyan
Marshal Tolbouhin Woodworking Plant — Sofia
WAREHOUSE BASES, SILOS, COMPLETING BASES, REPAIR MECHANICAL SHOPS, etc.

MAJOR PROJECTS DESIGNED BY ZAVODPROJECT ABROAD

USSR — ceramic plants in Galitsino, Murmansk, Burundai, Blagoveshtensk, Karaganda, Dorogino, Bogorodsk, Ivanofrankovski, Levzheno, Sumi, Gavrailovka, Ulyanovsk, Ermak, Shakti, Metehi, Djezgazan, etc.

GDR — Lichterfeld, Ceramic Plant

MONGOLIA — Altay and Arvayher — ceramic plants

VIETNAM — Teo Zao and Dong Ton — ceramic plants; Fuktin — ceramic plant; Dagshan — ceramic plant

TANZANIA — Dar-es-salam — ceramic plant

AFGHANISTAN — Kabul — ceramic plant; Bagrami — reconstruction of a ceramic plant

IRAQ — Diala — ceramic plant; Baghdad — ceramic plant; Kut — ceramic plant



ЗАВОДПРОЕКТ —
работна зала

ZAVODPROJECT —
working hall



Работни зали —
проектиране „ЗА-
ВОДПРОЕКТ“

Working halls —
ZAVODPROJECT
designing



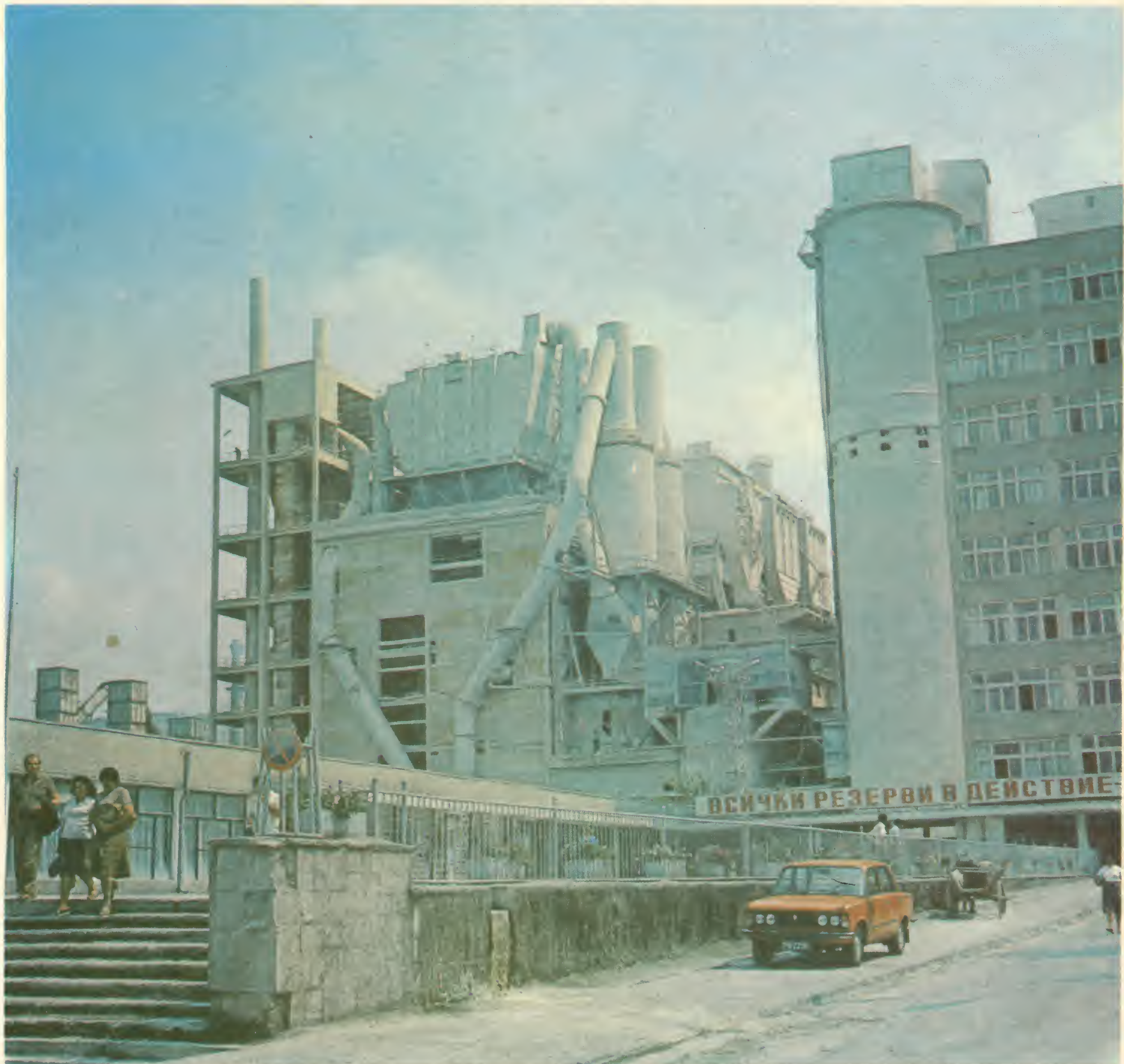


ДЦЗ „В. ПИК“ — с.
Бели Извор

ДЦЗ „ЗЛАТНА ПА-
НЕГА“

Wilhelm Pieck Sta-
te Cement Plant —
Beli Izvor village

ZLATNA PANEGA
State Cement Plant





ДЦЗ „ВАСИЛ КО-
ЛАРОВ“ — Темел-
ково

Склад за цимент
— ДЦЗ „ЗЛАТНА
ПАНЕГА“

VASSIL KOLAROV
State Cement Plant
— Temelkovo

Cement warehouse
— ZLATNA PANE-
GA State Cement
Plant





ЕИЦ — автома-
тична обработка
на шухта ДЦЗ
„ЗЛАТНА ПАНЕ-
ГА“

ЕИЦ — автома-
тична обработка
на шухта ДЦЗ
„ЗЛАТНА ПАНЕ-
ГА“

Computer Centre
— automatic pro-
cessing of mixtures
— ZLATNA PANE-
GA State Cement
Plant

Computer Centre
— automatic pro-
cessing of mixtures
— ZLATNA PANE-
GA State Cement
Plant



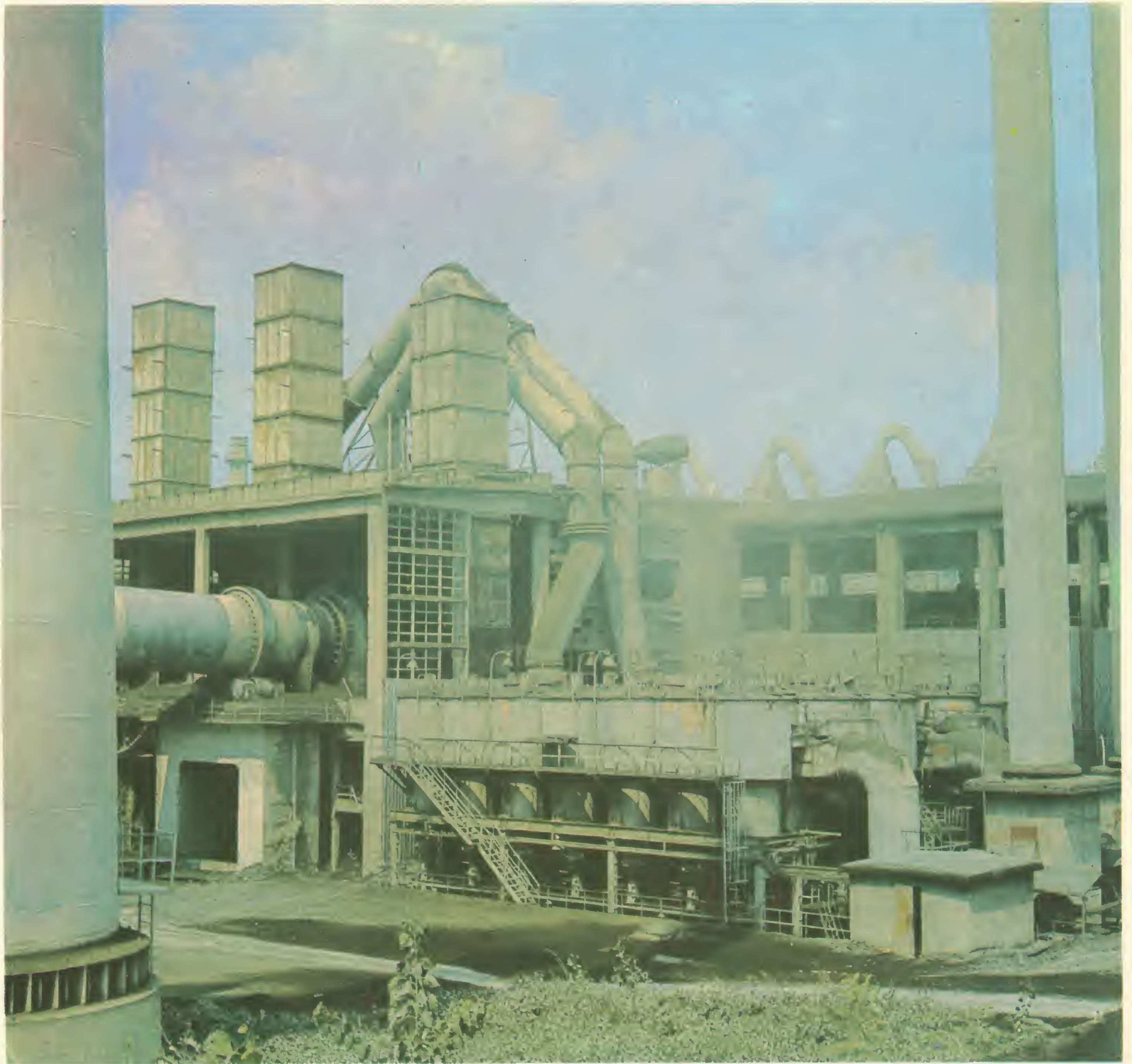


Охладителни кули
на пещните линии
ДЦЗ „ЗЛАТНА ПА-
НЕГА“

Скарни охлади-
тели ДЦЗ „ЗЛАТНА
ПАНЕГА“

Cooling towers of
the furnace lines
ZLATNA PANEGA
State Cement Plant

View to the grate
coolers — ZLATNA
PANEGA State Ce-
ment Plant





Командна зала —
ДЦЗ „ВИЛХЕЛМ
ПИК“

Въртяща печ ДЦЗ
„В. КОЛАРОВ“ —
Темелково

Control room —
Wilhelm Pieck Sta-
te Cement Plant

rotary furnace — V.
Kolarov State Ce-
ment Plant — Te-
melkovo





Пещен цех — ДЦЗ
„ДЕВНЯ“

Електрофилтри
на пещите — ДЦЗ
„В. КОЛАРОВ“ —
Темелково

Furnace Workshop
— DEVNYA State
Cement Plant

Electric filters of
the furnaces — V.
KOLAROV State
Cement Plant —
Temelkovo





Циментови мел-
ници — ДЦЗ „ДЕВ-
НЯ“

Силози за цимент
— ДЦЗ „ДЕВНЯ“

Grinding mills — DE-
VNYA State Ce-
ment Plant

Cement silos — DE-
VNYA State Ce-
ment Plant





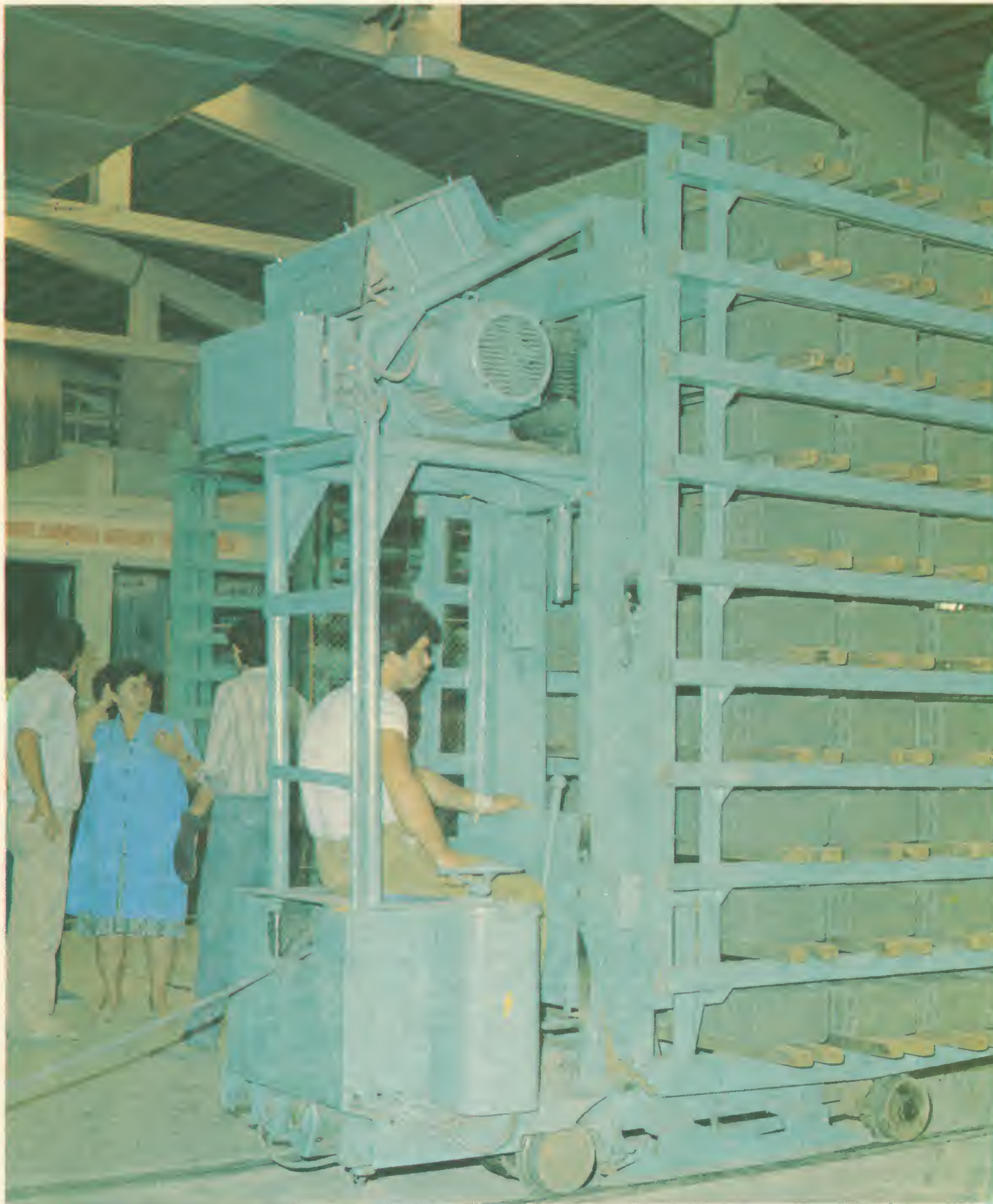


Печно отделение
— ДКЗ „ТРАКИЯ“
— Пловдив

Латов автомат и
стелаж-елеватор
за мокри тухли
— ДКЗ „ТРАКИЯ“
— Пловдив

Furnace section —
TRAKIA State Ce-
ramic Plant

Automatic control
machine for strips
feeding and arrang-
ing, and rack-lift
for wet bricks —
TRAKIA State Ce-
ramic Plant — Plov-
div

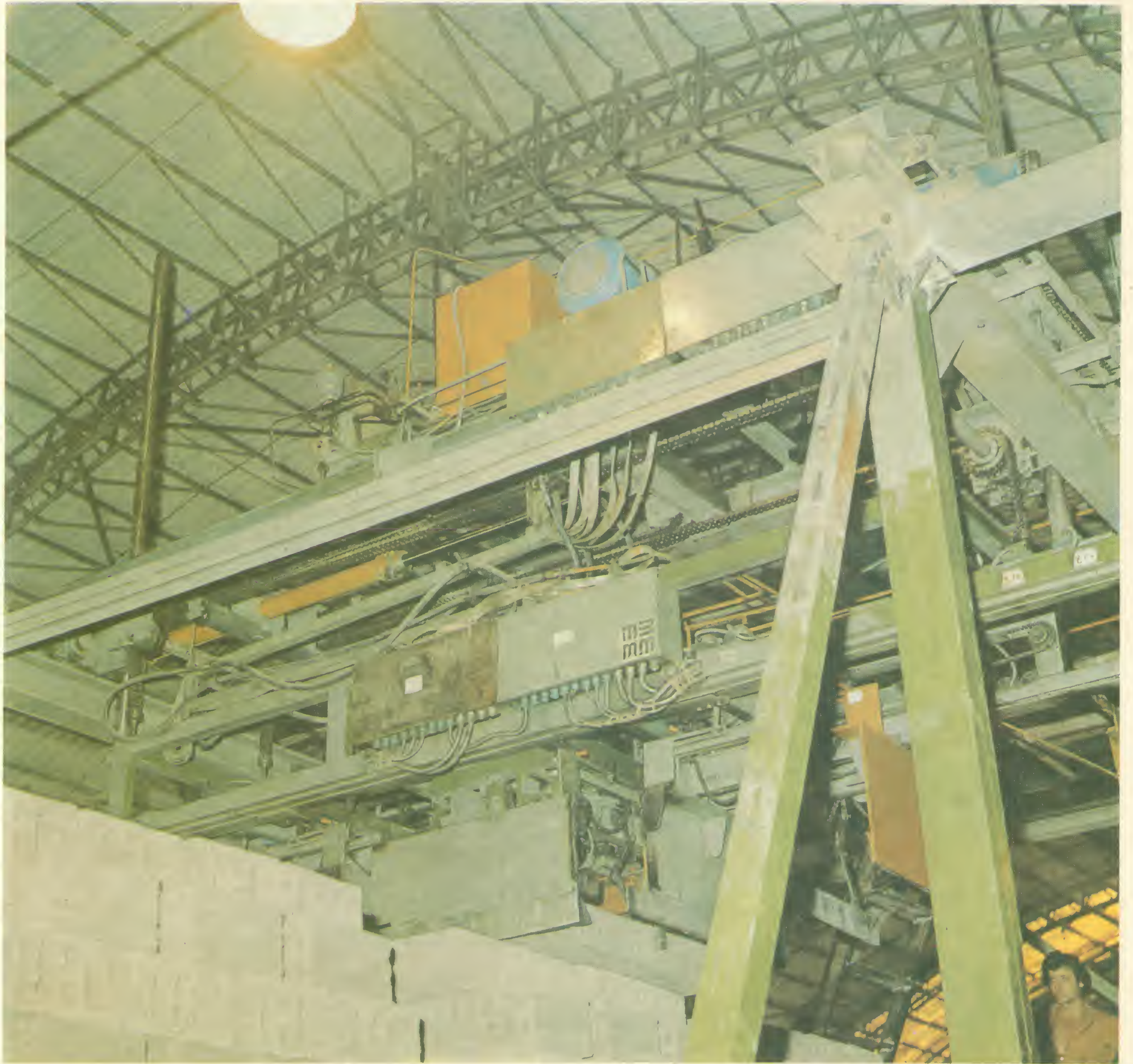


Вилочна количка
— ДКЗ „ТРАКИЯ“
— Пловдив

Автомат за на-
реждане на сухи
тухли — ДКЗ
„ТРАКИЯ“ —
Пловдив

Fork trolley — TRA-
KIA State Ceramic
Plant — Plovdiv

Automatic control
machine for arrang-
ing dry bricks —
TRAKIA State Ce-
ramic Plant — Plov-
div



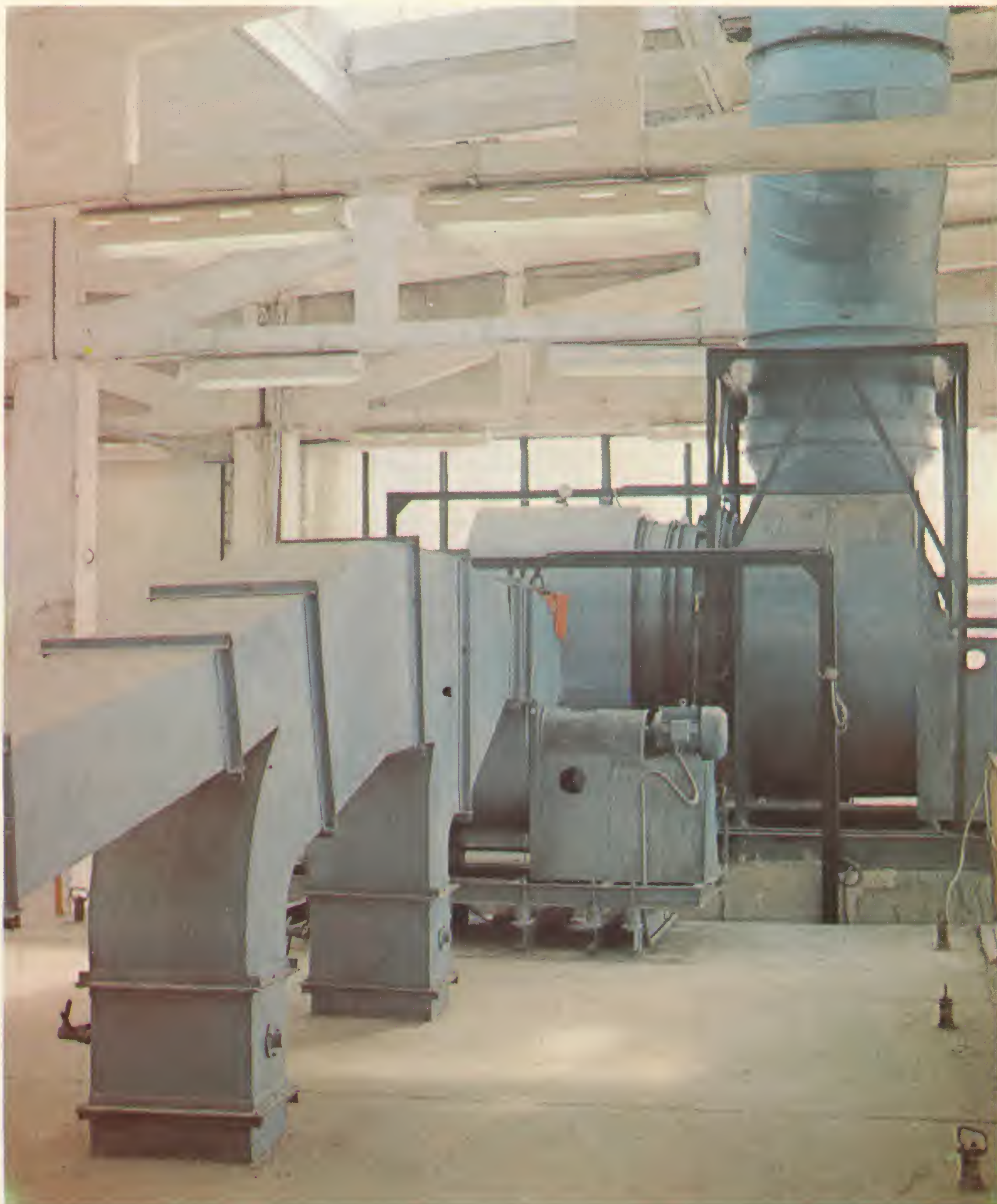


Тунелна пещ —
подгревна зона —
ДКЗ „РЕЛЪОВО“

Тунелна пещ —
охладителна зона
— ДКЗ „Рельово“

Tunnel furnace —
heating zone — RE-
LYOVO State Cera-
mic Plnt

Tunnel furnace —
cooling zone — RE-
LYOVO State Cera-
mic Plant







Корпус сортиране
— Карiera „БРА-
ТЯ КУНЧЕВИ“

Междинен склад
— Карiera „БРА-
ТЯ КУНЧЕВИ“

Sorting shop —
BRATYA KOUN-
CHEVI Quarry

Intermediary ware-
house — Bratya
Kounchevi Quarry





Трошачен корпус
— Кариера „СИНИ
ВИР“

Второ трошене
— Кариера „Сини
Вир“

Crushing shop —
SINI VIR Quarry

Second crushing —
SINI VIR Quarry



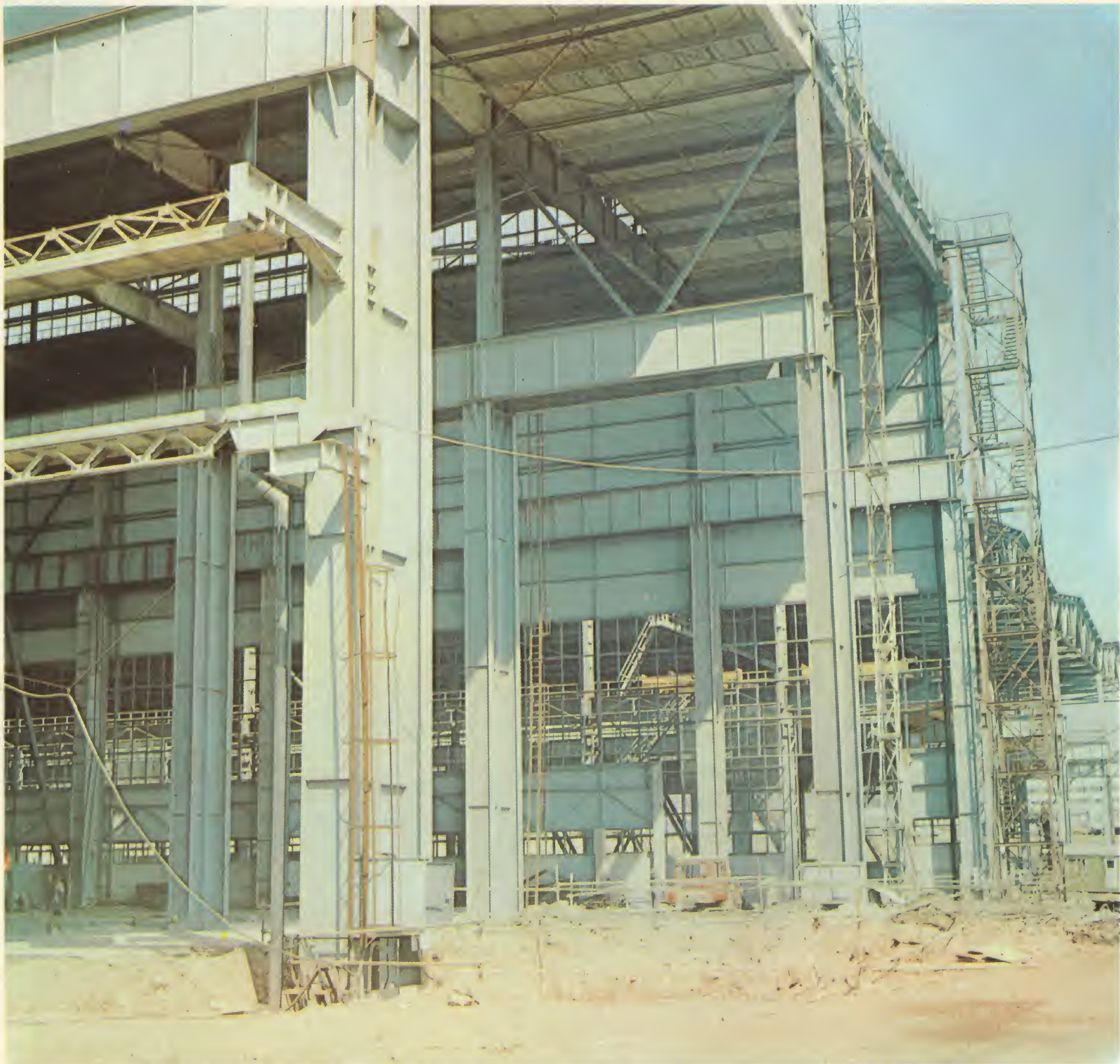
Пресебен корпус
— Карiera „СИНИ
ВИР”

Сухо пресяване —
Карiera „БРАТЯ
КУНЧЕВИ”

Sifting shop — SINI
VIR Quarry

Dry sifting —
BRATYA KOUN-
CHEVI Quarry





Стоманодобивен
цех — ЗТМ — Ра-
домир

Стоманолеярен
цех — ЗТМ — Ра-
домир

Steel-producing
workshop — Heavy
Machinebuilding
Plant — Radomir

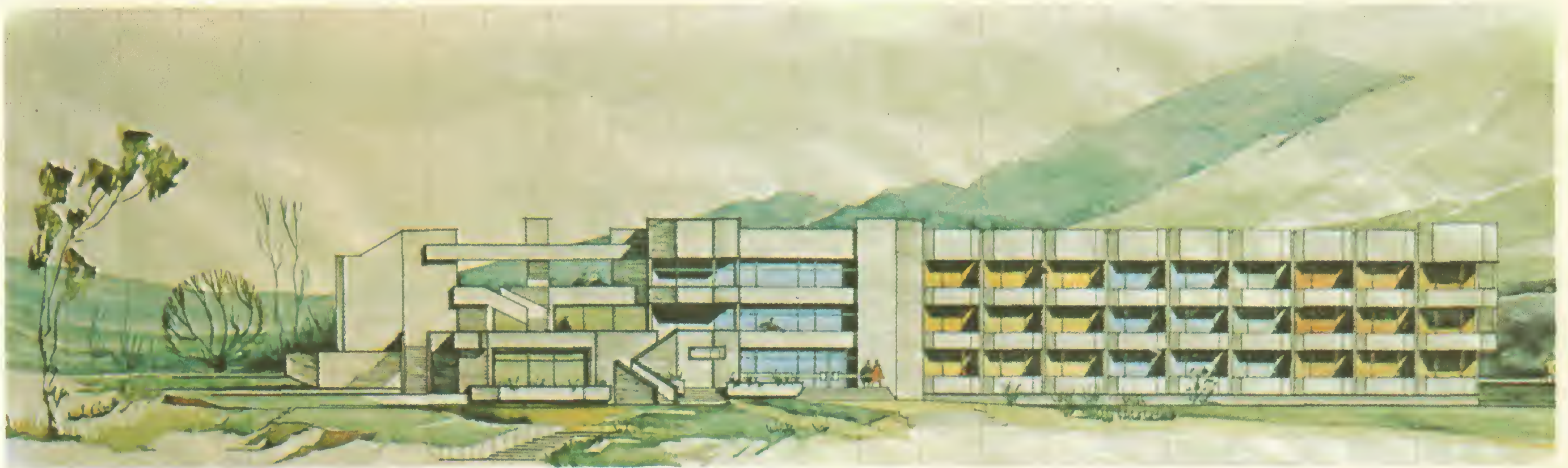
Steelcasting work-
shop — Heavy Mac-
hinebuilding Plant
— Radomir



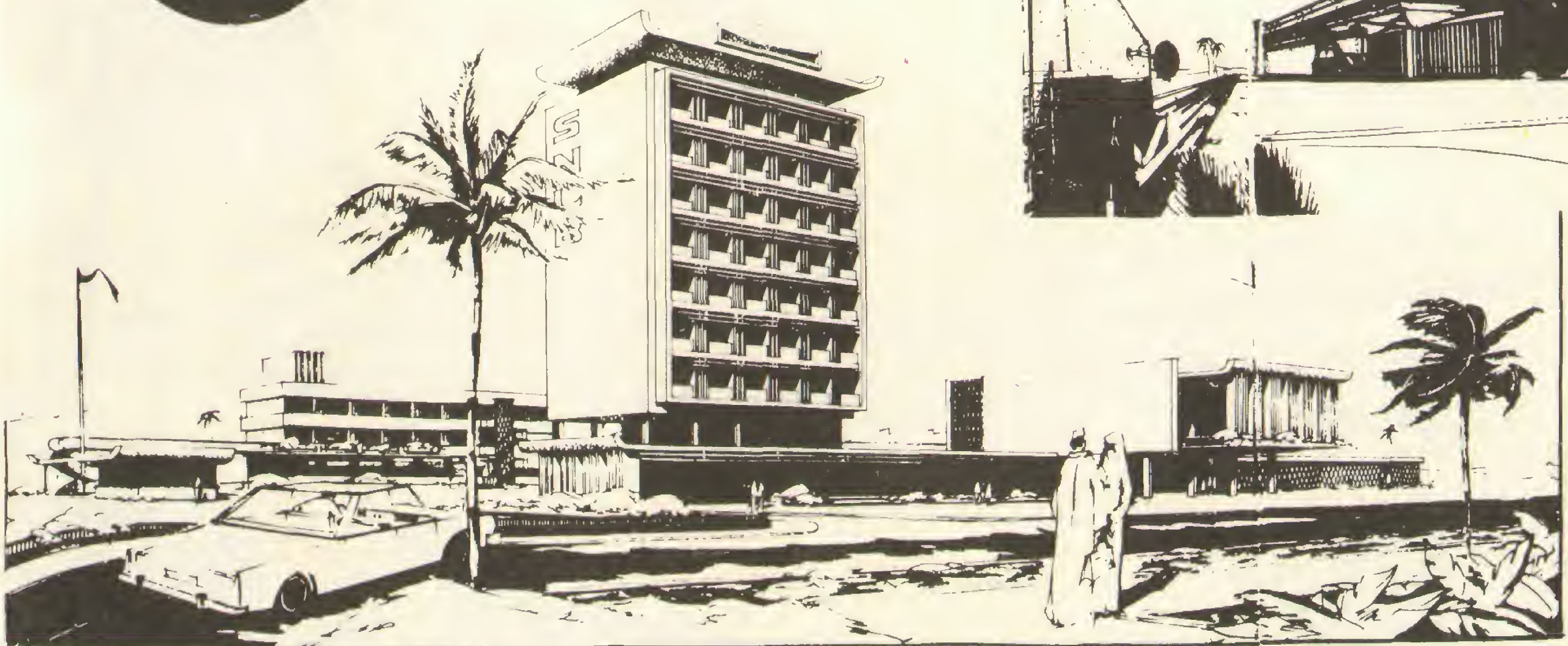
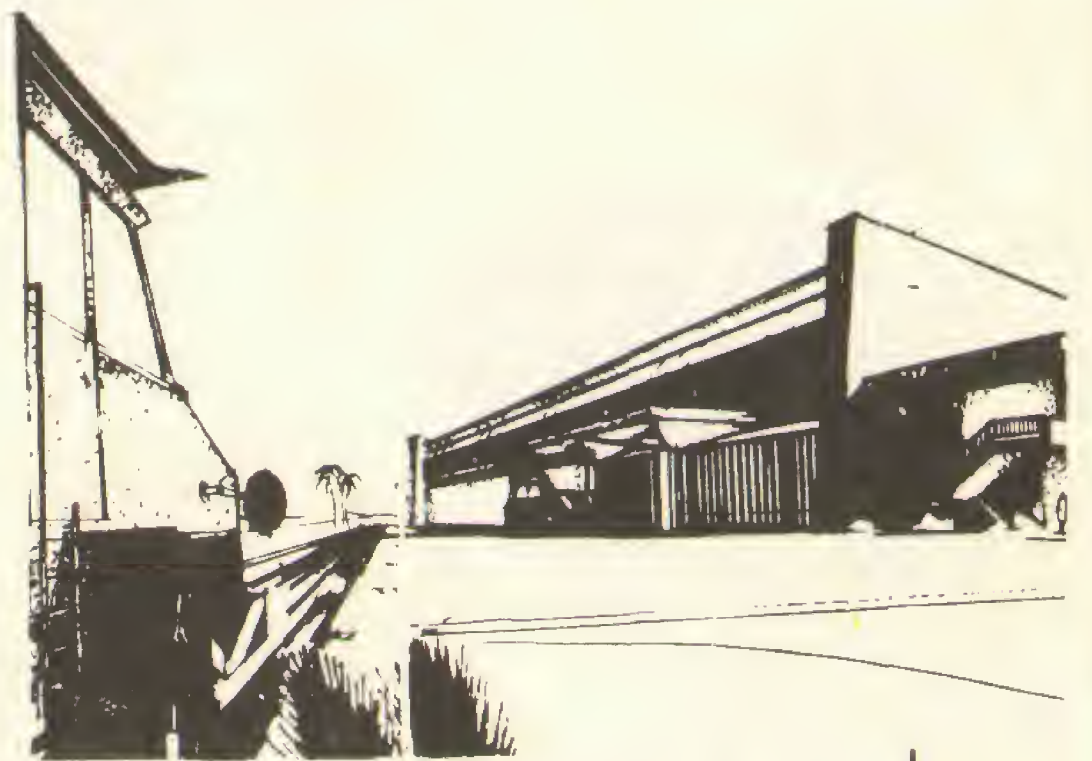


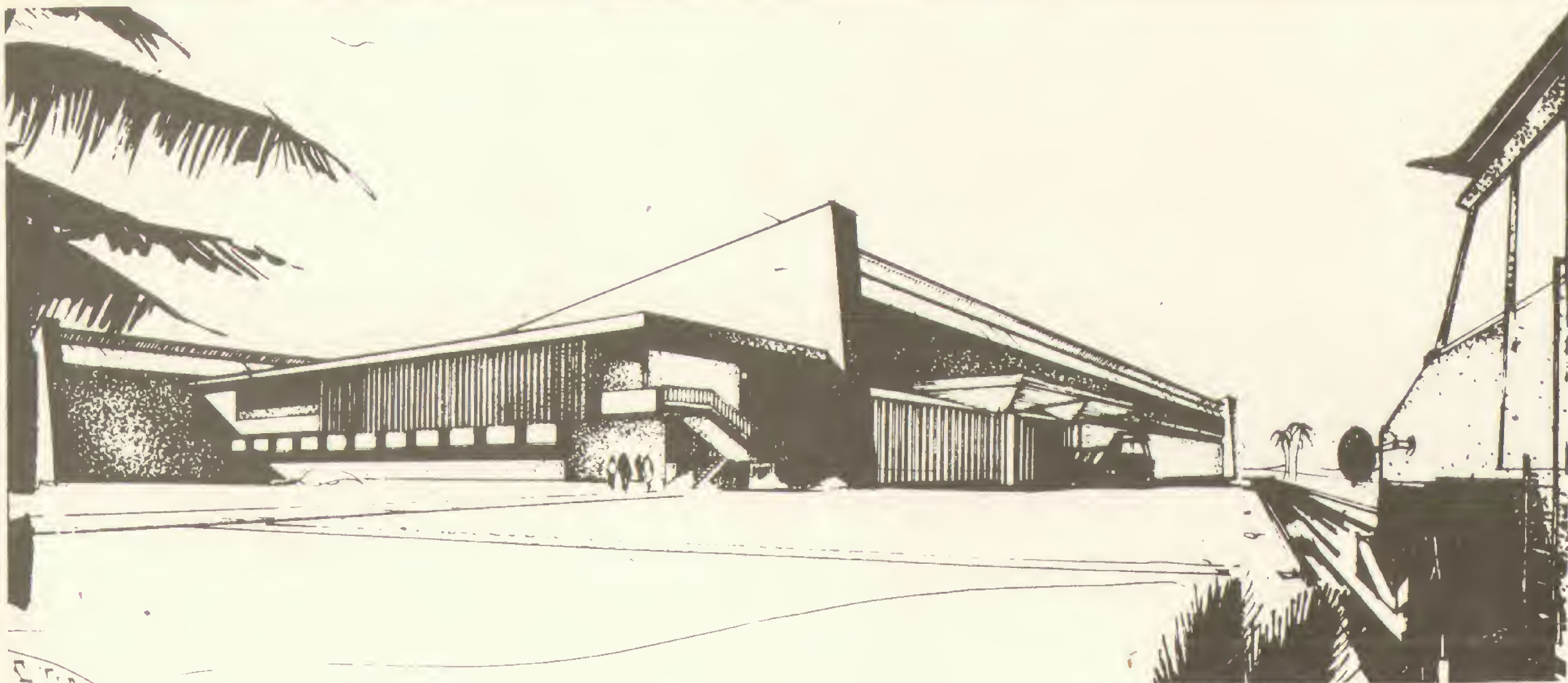
Стоманодобивен
цех

Steel producing
workshop



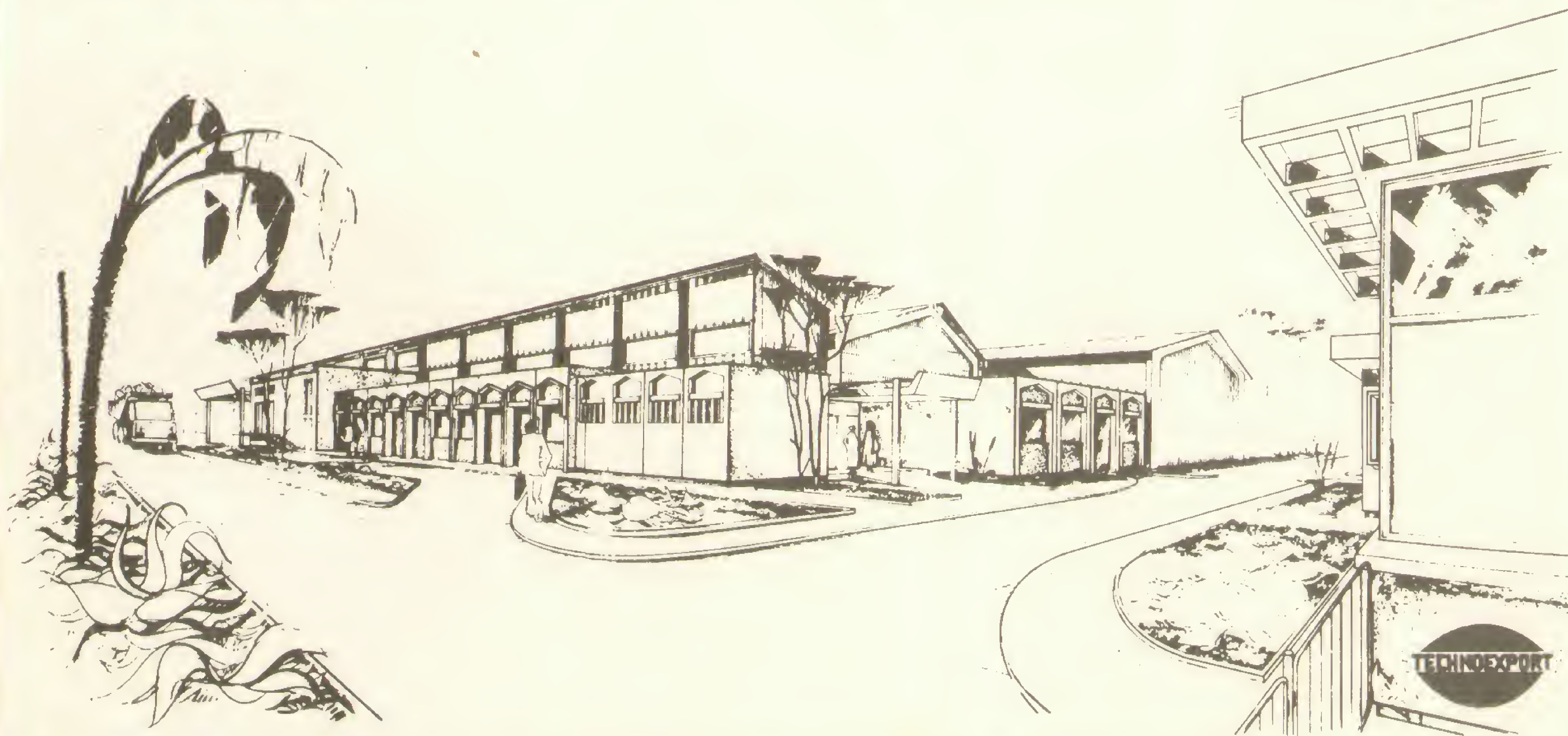
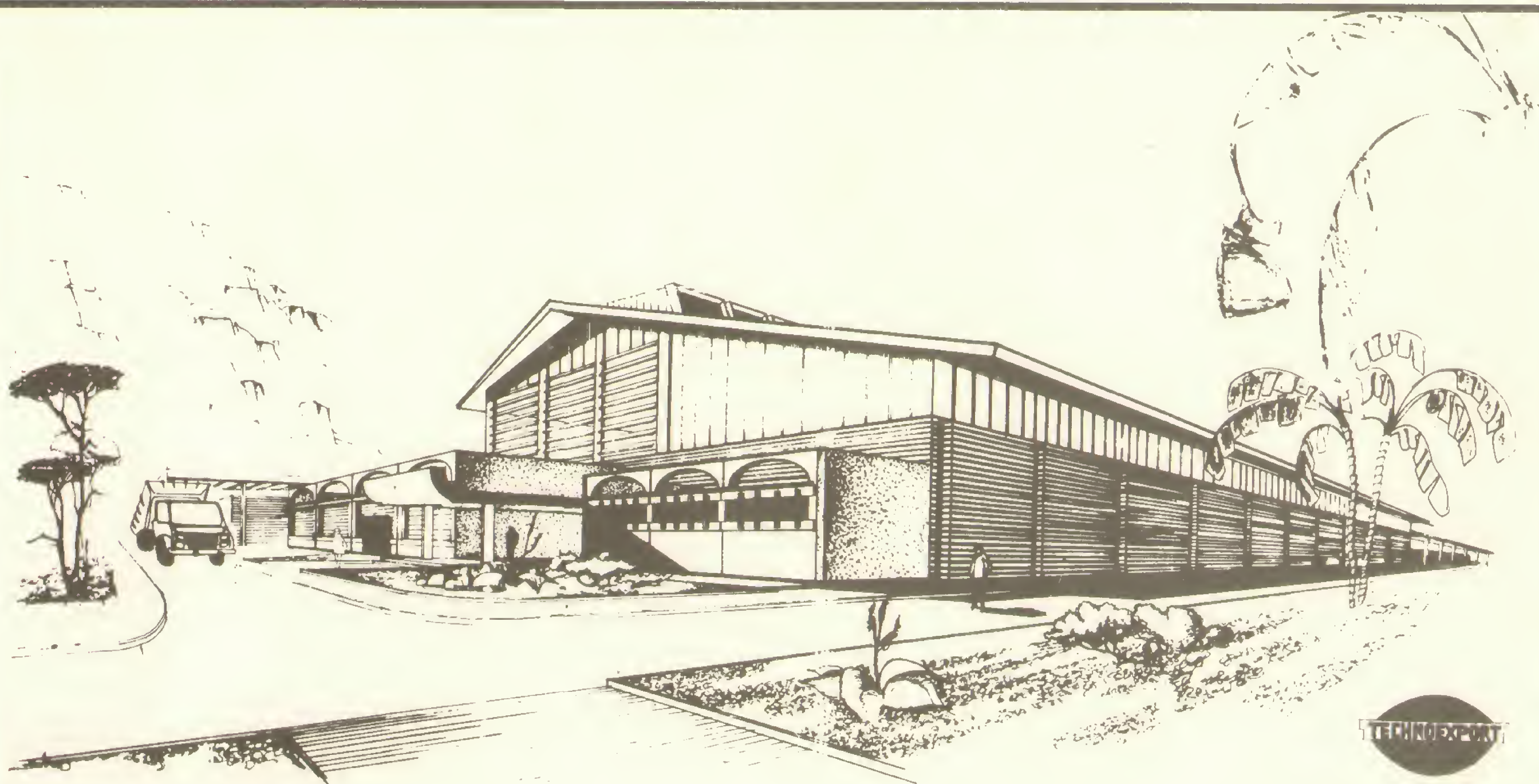
TECHNOEXPORT





SONIBO





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